BEST AVAILABLE COPY

PATENT COOPERATION TREATY

PCT

REC'D 2 0 DEC 2005

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference GLL/ara/30067890	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)					
International application No. PCT/SG2003/000211	International filing date (day/mon 05.09.2003	th/year) Priority date (day/month/year) 05.09.2003					
International Patent Classification (IPC) or both national classification and IPC A63B57/00							
Applicant E.T. LIM							
 This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. 							
2. This REPORT consists of a total	2. This REPORT consists of a total of 8 sheets, including this cover sheet.						
been amended and are the (see Rule 70.16 and Sectio							
3. This report contains indications re	. This report contains indications relating to the following items:						
I ⊠ Basis of the opinion	•						
II Priority							
	opinion with regard to novelty,	inventive step and industrial applicability					
IV Lack of unity of inven							
V ⊠ Reasoned statement	d statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; and explanations supporting such statement						
VI Certain documents ci	ted	•					
1	international application						
VIII Certain observations	on the international application						
Date of submission of the demand		of completion of this report					
01.04.2005		2.2005					
Name and mailing address of the internation	onal Autho	orized Officer .:					
preliminary examining authority: European Patent Office - P.B. NL-2280 HV Rijswijk - Pays Tel. +31 70 340 - 2040 Tx: 3 Fax: +31 70 340 - 3016	Bas Willi 1 651 epo nl	ams, M phone No. +31 70 340-3521					

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SG2003/000211

1.	Basis	of the	report
----	--------------	--------	--------

1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Desc	cription, Pages				
	4-10		as originally filed			
	3		filed with telefax on 01.04.2005			
	1, 2,	2A, 2B	filed with telefax on 12.12.2005			
	Clai	ms, Numbers				
	1-21		filed with telefax on 12.12.2005			
	Drav	wings, Sheets				
	1/8-8	3/8	filed with telefax on 01.04.2005			
2.	. With regard to the language , all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.					
	The	se elements were ava	ilable or furnished to this Authority in the following language: , which is:			
		the language of a trar	nslation furnished for the purposes of the international search (under Rule 23.1(b)).			
		the language of publication of the international application (under Rule 48.3(b)).				
		the language of a train Rule 55.2 and/or 55.3	nslation furnished for the purposes of international preliminary examination (under l).			
 With regard to any nucleotide and/or amino acid sequence disclosed in the international application international preliminary examination was carried out on the basis of the sequence listing: 						
		contained in the inter	national application in written form.			
		filed together with the international application in computer readable form.				
		☐ furnished subsequently to this Authority in written form.				
		I furnished subsequently to this Authority in computer readable form.				
		The statement that the in the international ap	ne subsequently furnished written sequence listing does not go beyond the disclosure oplication as filed has been furnished.			
		The statement that the listing has been furni	ne information recorded in computer readable form is identical to the written sequence shed.			
4.	The	e amendments have re	esulted in the cancellation of:			
		the description,	pages:			
		the claims,	Nos.:			
		the drawings,	sheets:			

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SG2003/000211

5.

This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

- 6. Additional observations, if necessary:
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: Claims

1-11,15,18,21

No: Claims

12-14,16,17,19,20

Inventive step (IS)

Yes: Claims

No: Claims

1-21

Industrial applicability (IA)

Yes: Claims

Claims

1-21

No:

2. Citations and explanations

see separate sheet

Re Item I Basis of the report

- 1. The applicant has introduced entirely new figures 2d, 2e, 3d, 3e, 4d, 4e and 5, has made amendments on replacement pages 1, 2, 2A, 2B and 3 of the description, and has provided a set of amended claims 1-21, on replacement pages 11-14.
- 1.1 The information content of the introduced drawings extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The original description is not considered to provide a sufficient basis for the added drawings. Therefore the amendments to the drawings (along with the amendments to the list of drawings on replacement pages 2B and 3) were not taken into account.
- 1.2 The amended text on replacement pages 1, 2, 2A and 2B seemingly constitutes a summary of a first aspect and a second aspect of the invention. However, it is impossible to understand the second aspect as described in the amended text. The amended text states that the second aspect concerns: "...a golf tee (110) characterised by a base portion (13) having at least one cavity and at least one shaft (12)...". From this wording it is understood that the base portion (13) comprises at least one cavity and at least one shaft (12). However, the amended text subsequently states: "...the shaft (12) being pivotable relative to the base portion (13)...". This does not make sense.

Furthermore, the summary of the second aspect appears to contradict the original description, which states that the fourth embodiment (the final embodiment described and the only one with a so-called base portion) differs from all the previous embodiments in that: "...the shaft (12) is replaced with a base portion (13)" (see page 8, line 21 - page 9, line 1). It therefore appears that the amended text extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT.

For these reasons, the amendments on replacement pages 1, 2, 2A and 2B were not taken into account.

1.3 Amended claims 1-11 meet the requirements of Article 34(2)(b) PCT, since the subject-matter of amended independent claim 1 corresponds to the subject-matter of original independent claim 1 with additional information which is supported by

the application as filed (see for example page 8, lines 14-20). Each of amended dependent claims 2-11 corresponds to one of the claims as originally filed.

Independent claim 12 of the amended claims broadly corresponds to the second aspect of the invention as described in the amended text on replacement pages 1, 2, 2A and 2B, and is therefore not allowable for the same reasons given in paragraph 1.2 above. Therefore, the amendments introduced into independent claim 12 of the amended claims were not taken into account, so that for the present report, objections to claims 12-21 are made based on independent claim 12 being worded as original independent claim 11.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: JP 51 068330 A (MORISHITA JUICHI) 12 June 1976 (1976-06-12)

D2: GB 29794 A A.D. 1913 (STOTT) 25 June 1914 (1914-06-25)

D3: US-A-3 414 268 (CHASE) 3 December 1968 (1968-12-03)

D4: US-A-3 966 214 (COLLINS) 29 June 1976 (1976-06-29)

D5: DE 200 14 825 U (OPDEMOM) 23 November 2000 (2000-11-23)

D6: US-A-4 998 732 (GALLANT) 12 March 1991 (1991-03-12)

D7: US-A-5 613 678 (MCKEE ET AL.) 25 March 1997 (1997-03-25)

D8: US-A-1 623 119 (KEARNEY) 5 April 1927 (1927-04-05)

D9: GB 236 132 A (LOYD) 2 July 1925 (1925-07-02)

INDEPENDENT CLAIM 1 1.

1.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

The document D3 is regarded as being the closest prior art to the subject-matter

of claim 1, and discloses (the references in parentheses applying to this document):

a golf tee comprising a shaft (12B) adapted for insertion into a surface of ground, and a pivotable support portion (11B, 21) mounted atop an upper end of the shaft, the pivotable support portion having a plurality of members (17) mounted thereupon, the members (17) being arranged to support a golf ball placed atop the members (17) such that the golf ball is positioned substantially above the members (17), and the pivotable support portion is pivotable relative to a longitudinal axis of the shaft (12B) so as to assist in balancing the golf ball atop the members (17) (see column 3, lines 10-24 and figure 4).

The subject-matter of claim 1 therefore differs from this known golf tee in that: the plurality of members arranged to support the golf ball are upright prong members.

The problem to be solved by the present invention may therefore be regarded as to support a golf ball with minimal surface contact between the golf tee and the golf ball.

The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons.

The points (17) at the upper extremities of fingers (16) are described in document D9 as providing the same advantages as in the present application (see page 1, lines 59-83 and figures 1-3). The skilled person would therefore regard it as a normal design option to include this feature in the golf tee described in document D3 in order to solve the problem posed.

2. INDEPENDENT CLAIM 12

The application does not meet the requirements of Article 6 PCT, because claim 2.1 12 is not clear.

The wording "...comprising a base portion with at least one cavity and at least one pivotable support portion pivotably mounted on an upper surface thereof..." in claim 12 is vague and unclear and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the

subject-matter of said claim unclear, Article 6 PCT. In this wording, it is not clear whether the word "thereof" refers to the base portion or the at least one cavity.

2.2 Furthermore, the above-mentioned lack of clarity notwithstanding, the subjectmatter of claim 12 is not new in the sense of Article 33(2) PCT, and therefore the criteria of Article 33(1) PCT are not met.

The document D2 discloses (the references in parentheses applying to this document):

a golf tee comprising a base portion (A) with at least one cavity (see fig 10) and at least one pivotable support portion (H, I, J) pivotably mounted on an upper surface thereof, the or each pivotable support portion having a plurality of upright prong members (B) mounted thereupon, the prong members being adapted in use to support a golf ball (C) placed thereupon, wherein the or each pivotable support member is receivable within the cavity (see page 3, line 35 to page 4, line 37 and figures 1-10).

The subject-matter of claim 12 is therefore not new (Article 33(2) PCT).

- **DEPENDENT CLAIMS 2-11 AND 13-21** 3.
- Dependent claims 2-11 and 13-21 do not contain any features which, in 3.1 combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D2 to D9 and the corresponding passages cited in the search report. In as far as some of the dependent claims are not covered by these documents, these dependent claims just define constructional details or obvious additional features which come within the scope of the customary practice followed by persons skilled in the art.

REMARKS:

Although claims 1 and 12 have been drafted as separate independent claims, they a. appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is

sought (see for example the terms "shaft" in claim 1 and "base portion" in claim 12). The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

- Although claim 1 is drafted in the two-part form, the features known in combination b. from the prior art (D3) are incorrectly placed in the characterising portion (Rule 6.3(b) PCT).
- Independent claim 12 is not in the two-part form in accordance with Rule 6.3(b) C. PCT, which in the present case would have been appropriate, with those features known in combination from the prior art (e.g. D1 or D2) being placed in the preamble (Rule 6.3(b)(l) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- According to the requirements of Rule 11.13(I) reference signs not appearing in d. the description shall not appear in the drawings, and vice versa. This requirement is not met in view of the reference sign 15 on page 9, line 15 of the description.

interconnects.

15

20

25

Replacement Sheet 1 April 2005

Figure 4b is a longitudinal cross section of the golf tec of Figure 4a;

Figure 4c is an exploded longitudinal cross section of the golf-tee of Figure 4b; and Figure 4d is a plan view of a third embodiment of a golf-tee of the present invention, wherein the support portion is mounted on the shaft;

- Figure 4e is a longitudinal cross section of the golf tee of Figure 4d;

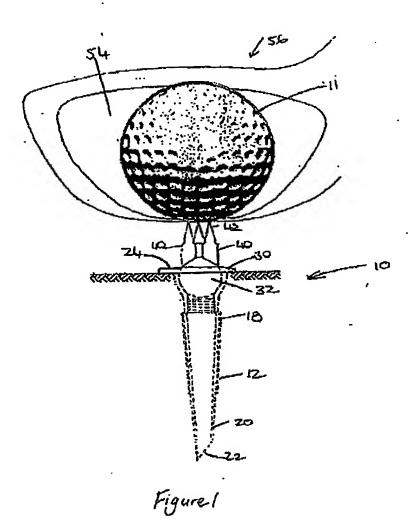
 Figure 5 is a longitudinal cross section of golf tee with long prong members and
 - Figure 6 is a plan view of a fourth embodiment of a golf tee in accordance with the present invention;
- Figure 7 is a side cross section of the fourth embodiment of the golf tee of Figure 6 and Figure 8 is a front cross section of the fourth embodiment of the golf tee of Figure 6.

Referring to the Figures, where like parts are denoted by like numerals in different embodiments, there is shown a golf tee 10 comprising a shaft 12, a pivotable support portion 16 disposed atop an upper end 18 of the shaft, a stopper portion 24 disposed adjacent the pivotable support portion 16 and a plurality of upright prong members 40. The shaft 12 is an clongate member, having an upper end 18 and a lower end 20. The upper end 18 is provided with a threaded portion 19. The shaft 12 is tapered at the 15 lower end 18 to form a pointed portion 22. The shaft 12 with pointed portion 22 is adapted for insertion into a surface of ground. The threaded portion 19 of the upper end 18 of the shaft 12 is adapted to receive the pivotable support portion 16. The pivotable support portion 16 is comprised of an upper portion 14 and a lower portion 26. The upper portion 14 and lower portion 26 are connected by a pivotable connection means 32.

The lower portion 26 of the pivotable support portion 16 includes a threaded portion 38, disposed at a lower end thereof. The threaded portion 38 is complementary to the threaded portion 19 at the upper end 18 of the shaft 12. The threaded portions 19, 38

01 APR 2005

. 1/8



2/8

0 1 APR 2005

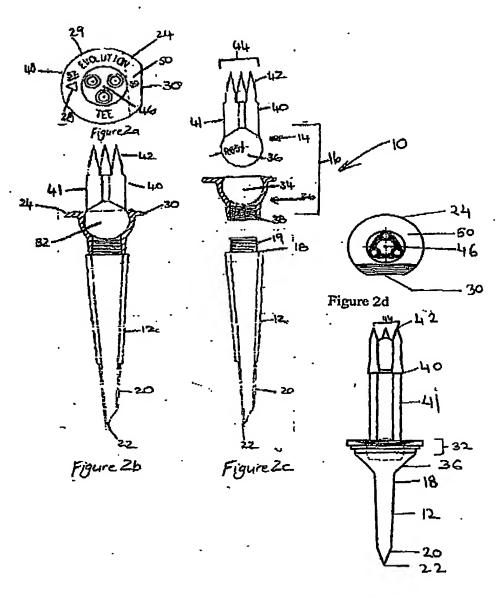


Figure 2e

01 APR 2005

3/8

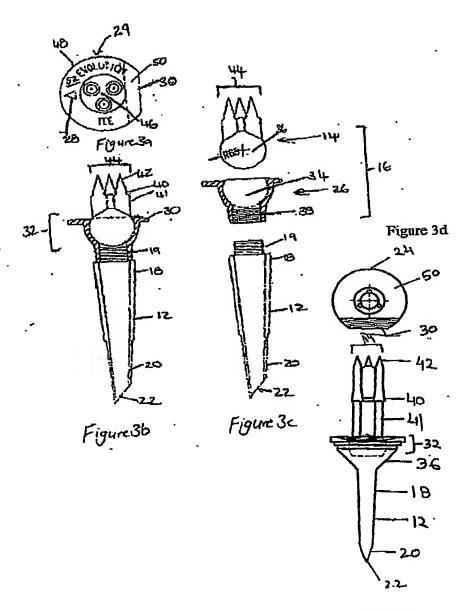
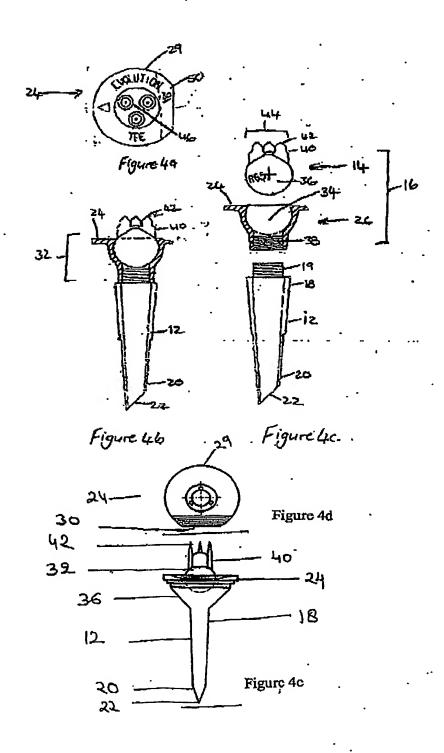


Figure 3e

4/8.

REPLACEMENT SHEET

0 1 APR 2005



01 APR 2005

5/8

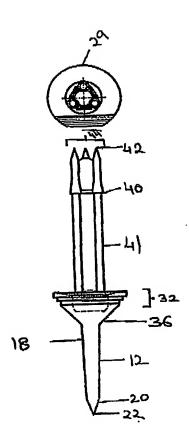
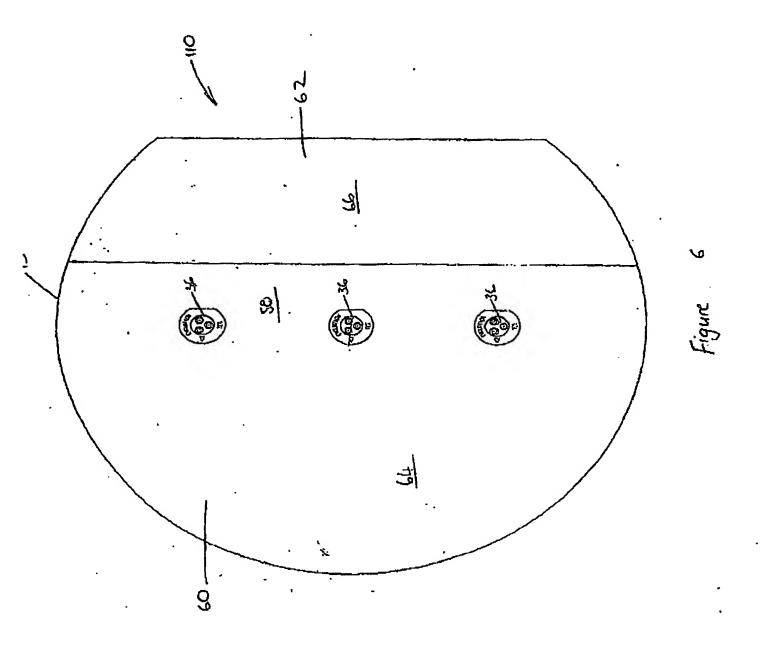


Figure 5

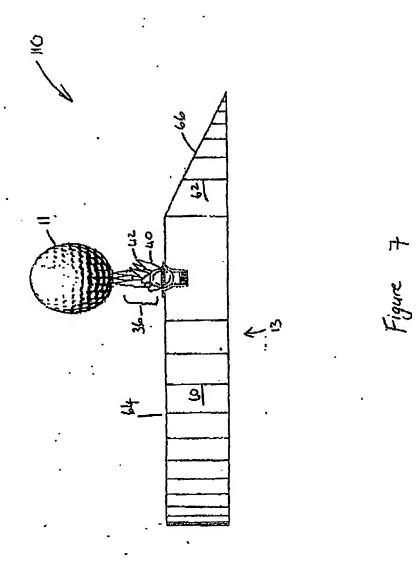
6/8

0 1 APR 2005



01 APR 2005

7/8



01 APR 2005

8/8

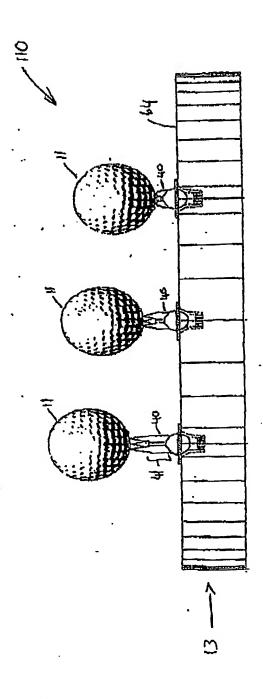


Figure 8

REPLACEMENT SHEET
1 2 DEC 2005

TITLE

"GOLF TEE"

FIELD OF THE INVENTION

The present invention relates to a golf tee. .

BACKGROUND OF THE INVENTION

Golf tees comprising an inflexible shaft with a substantially bowl-shaped support surface, upon which a golf ball is balanced, are known. It may be difficult to balance a golf ball upon such golf tees, detracting from the ability of a golfer to strike the ball in a fashion that affords the best drive possible. Difficulties in balancing the ball may be particularly enhanced where the playing surface is irregular. Further, it is theorised that the amount of surface contact necessary between the ball and the tee may hinder the distance of the drive when the ball is struck by a golf club in the known manner of play.

Such known golf tees may also be difficult to remove from the ground after a shot has been played from the tee. This difficulty may be enhanced in situations where the playing ground is hard and dry.

The present invention attempts to overcome at least in part the aforementioned disadvantages of previous golf tees.

SUMMARY OF THE INVENTION

5

10

15

20

Replacement Sheet 12 December 2005

In accordance with one aspect of the present invention there is provided a golf tee 10, characterised by a shaft 12 adapted for insertion into a surface of ground, and a pivotable support portion 16 mounted atop an upper end 18 of the shaft 12, the pivotable support portion 16 having a plurality of upright prong members 40 mounted thereupon, the prong members 40 being arranged to support a golf ball placed atop the prong members 40 such that the golf ball is positioned substantially above the upright prong members 40 and the pivotable support portion 16 is pivotable relative to a longitudinal axis of the shaft 12 so as to assist in balancing the golf ball atop the prong members 40.

In accordance with a second aspect of the present invention there is provided a golf tee 110, the golf tee 110 characterised by a base portion 13 having at least one cavity and at least one shaft 12 with a pivotable support portion 16 arranged atop the shaft 12, the pivotable support portion 16 having a plurality of prong members 40 mounted thereupon, the shaft 12 being pivotable relative to the base portion 13 between a first position in which the shaft 12 and prong members 40 are substantially upright and the prong members 40 are arranged to support a golf ball placed atop the prong members 40 such that the golf ball is positioned substantially above the upright prong members 40 and the pivotable support portion 16 is pivotable relative to a longitudinal axis of the shaft 12 so

Replacement Sheet 12 December 2005

as to assist in balancing the golf ball atop the upright prong members 40; and a second position in which the shaft 12, support portion and prong members 40 are disposed substantially within the cavity 15.

1'2 DEC 2005

5

10 DESCRIPTION OF AN EMBODIMENT OF THE INVENTION

The present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a side elevation view of a golf tee in accordance with the present invention; Figure 2a is a plan view of a second embodiment of a golf tee of the present invention;

- 15 Figure 2b is a longitudinal cross section of the golf tee of Figure 2a;
 - Figure 2c is an exploded longitudinal cross section of the golf tee of Figure 2b;

Figure 2d is a plan view of a second embodiment of a golf tee of the present invention,

wherein the support portion is mounted on the shaft;

Figure 2e is a longitudinal cross section of the golf tee of Figure 2d;

- 20. Figure 3a is a plan view of the golf tee of Figure 1;
 - Figure 3b is a longitudinal cross section of the golf tee of Figure 1;

Figure 3c is an exploded longitudinal cross section of the golf tee of Figure 1;

Figure 3d is a plan view of a third embodiment of a golf tee of the present invention, wherein the support portion is mounted on the shaft;

25 Figure 3e is a longitudinal cross section of the golf tee of Figure 3d;

Figure 4a is a plan view of a third embodiment of a golf tee of the present invention;

Replacement Sheet 12 December 2005

CLAIMS

1. A golf tee (10), characterised by a shaft (12) adapted for insertion into a surface of ground, and a pivotable support portion (16) mounted atop an upper end (18) of the shaft (12), the pivotable support portion (16) having a plurality of upright prong members (40) mounted thereupon, the prong members (40) being arranged to support a golf ball placed atop the prong members (40) such that the golf ball is positioned substantially above the upright prong members (40) and the pivotable support portion (16) is pivotable relative to a longitudinal axis of the shaft (12) so as to assist in balancing the golf ball atop the prong members (40).

15

25

10

5

- 2. A golf tee (10) in accordance with claim 1, characterised in that the pivotable support portion (16) has an upper portion (14) and a lower portion (26), wherein the upper portion (14) includes a pivotable portion (36).
- 20 3. A golf tee (10) in accordance with claim 2, characterised in that the pivotable portion (36) is pivotably mounted adjacent the upper end (18) of the shaft (12) by a pivotable connection means (32).
 - 4. A golf tee (10) in accordance with claim 3, characterised in that the pivotable connection means (32) is a ball and socket assembly.
 - 5. A golf tee (10) in accordance with any one of claims 2 to 4, characterised in that the lower portion (26) of the pivotable support portion (16) is provided with a socket (34), wherein the pivotable portion (36) is complementary in configuration to

10

Replacement Sheet 12 December 2005

- the socket (34), the pivotable portion (36) of the upper portion (14) being adapted to be engagingly received by the socket (34).
 - 6. A golf tee (10) in accordance with claim 1, characterised in that the pivotable support portion (16) is threadingly engaged with the upper end (18) of the shaft (12).
 - 7. A golf tee (10) in accordance with any one of the preceding claims, characterised in that the shaft (12) is provided with a stopper portion (24) disposed adjacent to the upper end (18) of the shaft (12).
- 15 8. A golf tee (10) in accordance with claim 7, characterised in that the stopper portion (24) is provided with a downwardly sloping surface (30), the downwardly sloping surface (30) being arranged, in use, to face towards a striking surface of a golf club.
- 20 9. A golf tee (10) in accordance with claim 8, characterised in that the downwardly sloping surface (30) has a gradient of 25° to the horizontal.
 - 10. A golf tee (10) in accordance with claim 8 or 9, characterised in that the stopper portion (24) is provided with a guidance marker (28), wherein the guidance marker (28) is disposed diametrically opposite the downwardly sloping surface (30).
 - 11. A golf tee (10) in accordance with any of claims 7 to 10, characterised in that the stopper portion (24) is provided with a plurality of leg portions extending downwardly from a lower surface thereof.

20

Replacement Sheet 12 December 2005

- 5 12. A golf tee (110), the golf tee (110) characterised by a base portion (13) having at least one cavity and at least one shaft (12) with a pivotable support portion (16) arranged atop the shaft (12), the pivotable support portion (16) having a plurality of prong members (40) mounted thereupon, the shaft (12) being pivotable relative to the base portion (13) between a first position in which the shaft (12) and prong members 10 (40) are substantially upright and the prong members (40) are arranged to support a golf ball placed atop the prong members (40) such that the golf ball is positioned substantially above the upright prong members (40) and the pivotable support portion (16) is pivotable relative to a longitudinal axis of the shaft (12) so as to assist in balancing the golf ball atop the upright prong members (40); and a second position in 15 which the shaft (12), support portion and prong members (40) are disposed substantially within the cavity (15).
 - 13. A golf tee (110) in accordance with claim 12, characterised in that each pivotable support portion (16) has three prong members (40) mounted thereupon.
 - 14. A golf tee (110) in accordance with claim 13, characterised in that each prong member (40) has a pointed portion (42) at an upper end thereof.
- 15. A golf tee (110) in accordance with claim 14, characterised in that each pointed portion (42) is substantially conical.
 - 16. A golf tee (10) in accordance with any one of the preceding claims, characterised in that the prong members (40) are equidistantly and equiangularly arranged upon the pivotable support portion (16), the prong members (40) forming a

15

20

25

Replacement Sheet 12 December 2005

- support surface to support a golf ball placed atop the prong members (40), whilst maintaining minimal contact between a surface of the golf ball and prong members (40).
- 17. A golf tee (10) in accordance with any of the preceding claims, characterised in that a longitudinal length of the plurality of prong members (40) on a single pivotable support portion (16) is substantially the same.
 - 18. A golf tee (10) in accordance with any one of the preceding claims, characterised in that the longitudinal length of the prong members (40) is variable and selected to suit a particular intended golf stroke.
 - 19. A golf tee (10) in accordance with any one of claims 12 to 18, characterised in that the base portion (13) comprises a first portion (60) having a substantially horizontal upper surface (64) and a second portion (62) having a downwardly sloping surface (66), the downwardly sloping surface (66) being arranged, in use, to face towards a striking surface of a golf club.
 - 20. A golf tee (10) in accordance with claim 19, characterised in that the downwardly sloping surface (66) has a gradient of 25° to the horizontal.
 - 21. A golf tee (10) in accordance with any one of claims 12 to 20, characterised in that the base portion (13) has three shafts (12) pivotably mounted thereupon.

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

□ BLACK BORDERS
□ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
□ FADED TEXT OR DRAWING
□ BLURRED OR ILLEGIBLE TEXT OR DRAWING
□ SKEWED/SLANTED IMAGES
□ COLOR OR BLACK AND WHITE PHOTOGRAPHS
□ GRAY SCALE DOCUMENTS
□ LINES OR MARKS ON ORIGINAL DOCUMENT
□ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
□ OTHER:

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.